

Appl No. 09/753,229
Amdt. Dated October 18, 2004
Reply to Office action of July 16, 2004

REMARKS/ARGUMENTS

Claims 1-28 are pending in the present application.

This Amendment is in response to the Office Action mailed July 16, 2004. In the Office Action, claims 1-8, 11-19, and 21-27 were rejected under 35 U.S.C. §102(e); and claims 9-10, 20, and 28 under 35 U.S.C. §103(a). Applicants have added new claims 29-33. Applicants submit that the newly added claims introduce no new matter. Applicants have amended claims 1, 14, 20, 24, 27 and 28. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Rejection Under 35 U.S.C. § 102

Claims 1-8, 11-19, and 21-27 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Publication No. 2001/0048744 issued to Kimura ("Kimura"). Applicants respectfully traverse the rejection and contend that a *prima facie* case of anticipation has not been established.

To anticipate a claim, the reference must teach every element of a the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Vergasaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the...claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989). Before setting forth the reasons for traversing the outstanding §102(e) rejection, a brief review of the cited references may be appropriate.

Kimura discloses an access point device and authentication method thereof. A mobile station sends a first authentication request message to an access point (Kimura, paragraph [0038]). The access point generates a challenge text using an initialization vector and a secret key, and sends to the mobile station (Kimura, paragraph [0039]). The mobile station ciphers (or encrypts) the challenge text using the shared secret data and the initialization vector to generate a second authentication request message and sends this second authentication message to the access point (Kimura, paragraph [0040]).

Kimura does not disclose explicitly or inherently: (1) the initialization vector falling within a first group of initialization vectors; (2) the first group including a plurality of

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initialization vectors solely used in connection with an authentication sequence, as recited in independent claims 1, 14, and 27; or (3) logic configured to analyze an initialization vector to determine whether the initialization vector is used for either authentication or data communications as recited in independent claim 24.

Kimura merely discloses determining the initialization vector arbitrarily on each execution of the authentication procedure (Kimura, paragraph [0039], page 4). Since the initialization vector is determined arbitrarily, the technique does not determine if the initialization vector falls within a first group.

Therefore, Applicants believe that independent claims 1, 14, 20, 24, 27, 28 and their respective dependent claims are distinguishable over the cited prior art reference. Accordingly, Applicants respectfully request the rejection under 35 U.S.C. §102(e) be withdrawn.

Rejection Under 35 U.S.C. § 103

Claims 9 and 10 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kimura in view of U.S. Publication No. 2002/0009199 issued to Ala-Laurila et al. ("Laurila"); rejected claims 20 and 28 under 35 U.S.C. §103(a) as being unpatentable over Kimura in view of European Patent No. EP862143A issued to Windel ("Windel"). Applicants respectfully traverse the rejection and contend that a *prima facie* case of obviousness has not been established.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP §2143, p. 2100-129 (8th Ed., Rev. 2, May 2004)*. Applicants respectfully contend that there is no suggestion or motivation to combine their teachings, and thus no *prima facie* case of obviousness has been established.

II. Rejection of claims 9-10:

Kimura discloses an access point device and authentication method thereof as discussed above.

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Laurila discloses an arranging data ciphering in a wireless telecommunication system. A second ciphering key K is concatenated with a 24-bit initialization vector to form an input for a WEP pseudorandom number generator to generate a key sequence. A plain text is combined with an integrity check value and the result is combined with the key sequence (Laurila, paragraph [0051]).

Kimura and Laurila, taken alone or in combination, do not disclose, suggest, or render obvious: (1) the initialization vector falling within a first group of initialization vectors, (2) the first group including a plurality of initialization vectors solely used in connection with an authentication sequence, and/or (3) determining whether a selected series of bits of the initialization vector has been set as recited in claim 9.

Kimura does not disclose or suggest determining whether the initialization vector falls within a first group of initialization vectors as discussed above. Laurila merely discloses changing the value of the initialization vector for each packet to be sent [Laurila, paragraph [0052]). Since the value of the initialization vector is changed for each packet to be sent, it is impossible to determine if the initialization vector belongs to a first group, or if a selected series of bits of the initialization vector has been set.

II. Rejections of independent claims 20 and 28:

Kimura is discussed above.

Windel discloses a method and arrangement for generating and checking a security imprint. The data are authenticated by grouping the data into contiguous blocks (Windel, Abstract, page 31, lines 46-49). Iterative exclusive OR operations are performed on blocks of data using the preceding blocks (Windel, Abstract, page 31, lines 49-54). The initialization vector is set to zero (Windel, Abstract, page 31, line 55).

Kimura and Windel, taken alone or in combination, do not disclose, suggest, or render obvious (1) partitioning 2N initialization vector into first and second groups, (2) using a first initialization vector from the first group exclusively for authentication, and (3) using a second initialization vector from the second group exclusively for data communication.

Kimura does not disclose partitioning the initialization vector into first and second groups. Therefore, Kimura does not disclose using a second initialization vector from the second group exclusively for data communication. Windel merely discloses dividing the data into data

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blocks, not the initialization vector. Furthermore, Windel explicitly discloses that the initialization vector is set to zero. Setting the entire initialization vector to zero is clearly not the same as partitioning the initialization vectors.

Therefore, Applicants believe that claims 9, 10, 20 and 28 are distinguishable over the cited prior art references. Accordingly, Applicants respectfully request the rejections under 35 U.S.C. §103(a) be withdrawn.

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Conclusion

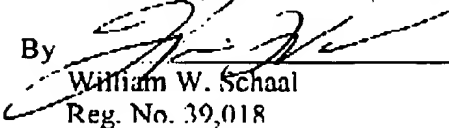
Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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Dated: October 18, 2004

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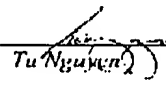
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October 18, 2004

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